Addition of Astigmatic Lens Increases VISAR Depth of Field.* D.J. ERSKINE, Lawrence Livermore Nat. Lab.-- In many velocity interferometer systems, the illuminating and reflected beams travel nearly collinear paths through the immediate target optics and are separated outside the experimental tank by a mirror with a narrow central hole. In such configurations, data is lost when the target moves through "top dead center", the focus position where the beam is exactly retro-reflected into the narrow hole. This limits the depth of field to less than half of its potential. We discover a weak cylinder lens affixed to the usual target lens eliminates this problem, producing an evenly collected reflected light power for a large focus range.

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